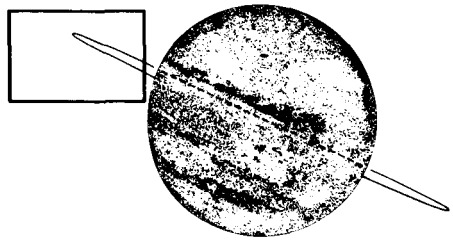
SQT

NASA
National Aeronautics and Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

Voyager 2-46
260-608
July 11, 1979

This striking view of Jupiter's ring was recorded by Voyager 2 on July 10, 1979, at a distance of 1.5 million kilometers (930,000 miles). The unexpected brightness is probably due to forward scattering of sunlight by very small ring particles. Seen within the inner region of the ring is a thin layer of material, which may extend down to Jupiter's cloud tops. Estimated as being less than 10 kilometers (6 miles) thick and 6,500 kilometers (4,000 miles) wide, the ring was first discovered when photographed in March 1979 by Voyager 1. The outer region of the ring extends approximately 55,000 kilometers (35,000 miles) above the cloud tops of Jupiter.



Artist's rendition of Jupiter's ring

The Voyager Project

Two unmanned spacecraft, Voyager 1 and 2, completed highly successful fly-through encounters of the Jovian system on March 5 and July 9, 1979, respectively. The twin spacecraft, now millions of miles beyond Jupiter, are en route to rendezvous with Saturn in November 1980 and August 1981. Voyager 2 may be placed on a trajectory passing Saturn that permits a Uranus encounter in early 1986. Both spacecraft eventually will escape the solar system into interstellar space.

Each spacecraft weighed 820 kg (1,800 lb) at launch and is equipped with eleven scientific instruments that perform a wide range of planetary observations. Voyager 2 was launched from Cape Canaveral, Florida, on August 20, 1977. Voyager 1, flying a shorter, faster trajectory, was launched on September 5, 1977. Communication with each spacecraft is achieved through a worldwide network of deep space tracking stations located in California, Australia, and Spain.

The more significant Jovian findings were the discovery of a ring system encircling Jupiter, erupting volcanos on the Galilean satellite Io, the large differences in appearance and evolution of the surfaces of Jupiter's four planet-size moons, superbolts of lightning and immense auroras in the planet's violently churning atmosphere, and the complex interactions of Jupiter's magnetosphere with the solar wind and Jupiter's satellites.

The Voyager Project was assigned to the Jet Propulsion Laboratory by the National Aeronautics and Space Administration's Office of Space Science as part of NASA's planetary exploration program.